CLAIMS

1. An air conditioner (1) comprising:

a refrigerant circuit (12) that includes a compressor (21), a heat source heat exchanger (23) configured such that refrigerant flows in from below and flows out from above when the heat source heat exchanger functions as an evaporator of the refrigerant, utilization heat exchangers (32, 42, 52), a liquid refrigerant pipe that connects the heat source heat exchanger and the utilization heat exchangers, and an expansion valve (24) disposed in the liquid refrigerant pipe, with the refrigerant circuit being capable of switching to cause the heat source heat exchanger and the utilization heat exchangers to function separately as evaporators or condensers of the refrigerant;

a first bypass circuit (102) that can bypass the refrigerant discharged from the compression mechanism to an intake side of the compression mechanism; and

an oil returning circuit (101) that connects a lower portion of the heat source heat exchanger and the intake side of the compression mechanism,

wherein the air conditioner conducts an oil recovery operation where, when the heat source heat exchanger is caused to function and operates as an evaporator, the refrigerant discharged from the compression mechanism is bypassed to the intake side of the compression mechanism via the first bypass circuit, operation is switched to an operation causing the heat source heat exchanger to function as a condenser, and the expansion valve is closed, whereby the refrigerant discharged from the compression mechanism is caused to flow into the heat source heat exchanger, and refrigerating machine oil accumulating inside the heat source heat exchanger is returned to the intake side of the compression mechanism via the oil returning circuit.

2. An air conditioner (1) comprising:

a refrigerant circuit (12) that includes a compressor (21), a heat source heat exchanger (23) configured such that refrigerant flows in from below and flows out from above when the heat source heat exchanger functions as an evaporator of the refrigerant, utilization heat exchangers (32, 42, 52), a liquid refrigerant pipe that connects the heat source heat exchanger and the utilization heat exchangers, an expansion valve (24) disposed in the liquid refrigerant pipe, a heat source switch mechanism (22) that is capable of switching between a condensation operation switched state that causes the heat source heat exchanger to function as a condenser of the refrigerant discharged from the compression mechanism and an evaporation operation switched state that causes the heat source heat exchanger to function as an evaporator of the refrigerant flowing through the liquid refrigerant pipe, a high-pressure

gas refrigerant pipe that is connected between an intake side of the compression mechanism and the heat source switch mechanism and can branch the refrigerant discharged from the compression mechanism before the refrigerant flows into the heat source switch mechanism, utilization switch mechanisms (66, 67, 76, 77, 86, 87) that are capable of switching between a cooling operation switched state that causes the heat source heat exchanger to function as an evaporator of the refrigerant flowing through the liquid refrigerant pipe and a heating operation switched state that causes the heat source heat exchanger to function as a condenser of the refrigerant flowing through the high-pressure gas refrigerant pipe, and a low-pressure gas refrigerant pipe that sends the refrigerant evaporated in the utilization heat exchangers to the intake side of the compression mechanism;

a first bypass circuit (102) that can bypass the refrigerant discharged from the compression mechanism to the intake side of the compression mechanism; and

an oil returning circuit (101) that connects a lower portion of the heat source heat exchanger and the intake side of the compression mechanism,

wherein the air conditioner conducts an oil recovery operation where, when the heat source switch mechanism is caused to function and operates as an evaporator, the refrigerant discharged from the compression mechanism is bypassed to the intake side of the compression mechanism via the first bypass circuit, the heat source switch mechanism is switched to the condensation operation state, and the expansion valve is closed, whereby the refrigerant discharged from the compression mechanism is caused to flow into the heat source heat exchanger, and refrigerating machine oil accumulating inside the heat source heat exchanger is returned to the intake side of the compression mechanism via the oil returning circuit.

3. The air conditioner (1) of claim 1 or 2, wherein a second bypass circuit (103) that is connected between the utilization heat exchangers (32, 42, 52) and the expansion valve (24) and can branch the refrigerant from the liquid refrigerant pipe and send the refrigerant to the intake side of the compression mechanism (21) is disposed in the liquid refrigerant pipe.

4. The air conditioner of claim 3, wherein a receiver (25) that is connected between the utilization heat exchangers (32, 42, 52) and the expansion valve (24) and accumulates the refrigerant flowing through the liquid refrigerant pipe is further disposed in the liquid refrigerant pipe, and

the second bypass circuit (103) is disposed such that it sends the refrigerant from an upper portion of the receiver to the intake side of the compression mechanism (21).

5. The air conditioner (1) of any of claims 1 to 4, wherein the heat source heat

exchanger (23) uses, as a heat source, water supplied at a constant amount without relation to the control of the flow rate of the refrigerant flowing inside the heat source heat exchanger.

6. The air conditioner (1) of any of claims 1 to 5, wherein the heat source heat exchanger (23) is a plate heat exchanger.

7. An air conditioner (1) comprising:

a refrigerant circuit (12) that includes a compressor (21), a heat source heat exchanger (23) configured such that refrigerant flows in from below and flows out from above when the heat source heat exchanger functions as an evaporator of the refrigerant, and utilization heat exchangers (32, 42, 52), with the refrigerant circuit being capable of switching to cause the heat source heat exchanger and the utilization heat exchangers to function separately as evaporators or condensers of the refrigerant; and

an oil returning circuit (101) that connects a lower portion of the heat source heat exchanger and an intake side of the compression mechanism,

wherein the air conditioner conducts an oil recovery operation where, when the heat source heat exchanger is caused to function and operates as an evaporator, operation is switched to an operation causing the heat source heat exchanger to function as a condenser, the refrigerant discharged from the compression mechanism is caused to flow into the heat source heat exchanger, and refrigerating machine oil accumulating inside the heat source heat exchanger is returned to the intake side of the compression mechanism via the oil returning circuit.

8. The air conditioner (1) of claim 7, further comprising a first bypass circuit (102) that can bypass the refrigerant discharged from the compression mechanism to an intake side of the compression mechanism, wherein during the oil recovery operation, the refrigerant discharged from the compression mechanism is bypassed to the intake side of the compression mechanism via the first bypass circuit.